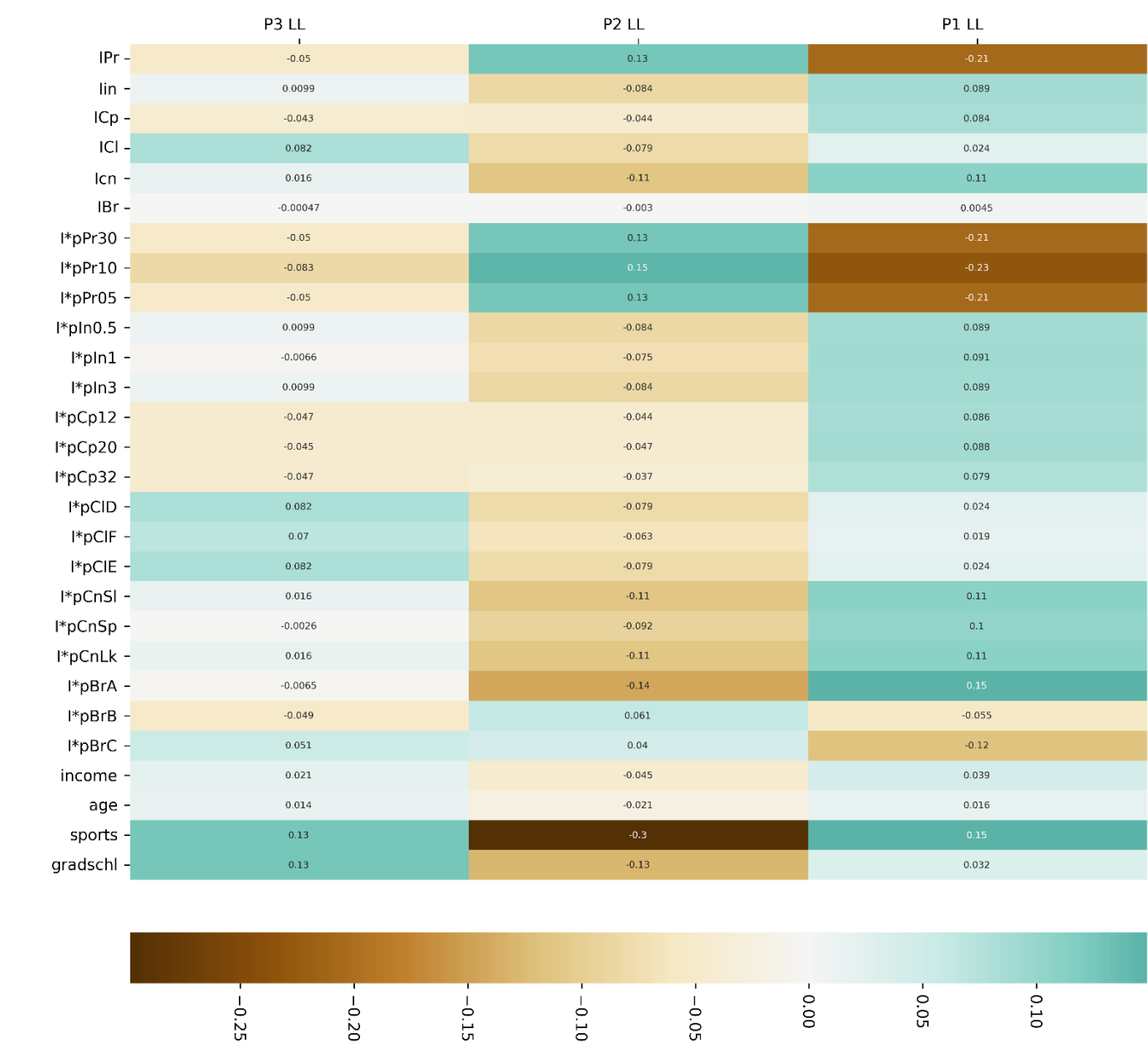


Part (A) Product affinity-based segmentation:



Persona for Product A:  
High Income | Brand Loyal | Sporty | Leak Resistance

Consumers of Product A are very loyal to brand A. They value the containment of the mugs with emphasis on the Leak and spill resistance features. These people are associated with sports and are very outdoorsy. They are price insensitive and have high income levels.

Persona for Product B:

Price Sensitive | Low Income | Relatively Young

Consumers of Product B are relatively very sensitive to price. They tend to choose products with lower prices. These people are younger than the average and have low incomes. These customers tend to change their brand preference according to the prices.

Persona for Product C:

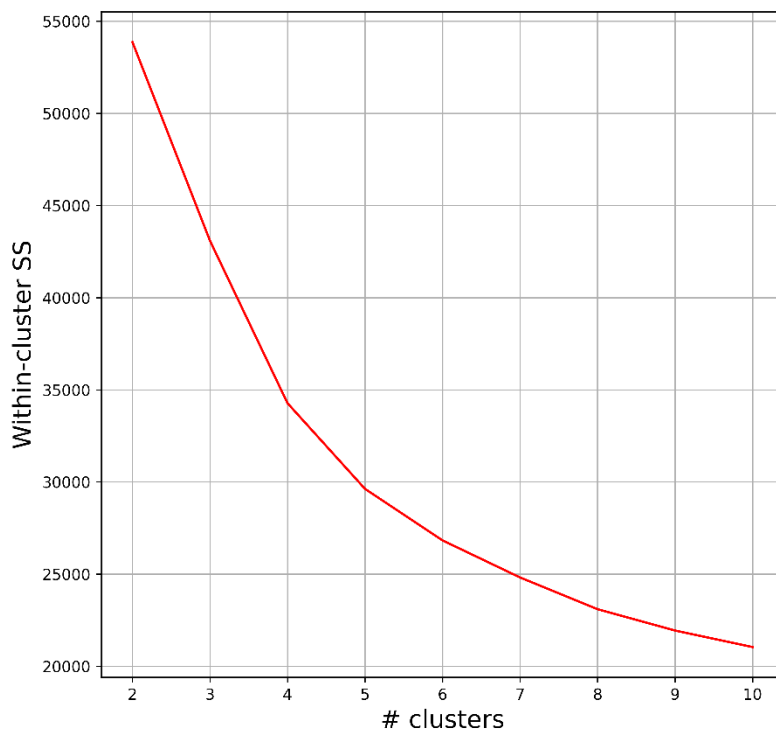
Cleanliness freaks | Sporty | Highly Educated | High Incomes

Consumers of Product C are highly educated and are sporty. They love the easy cleaning features of the mugs. These customers have higher than average income and can be seen as people who like to keep themselves busy with activities. Given their weak brand loyalties, it's better to target them with the easy cleaning features of the mugs.

## Part B: Classical segmentation

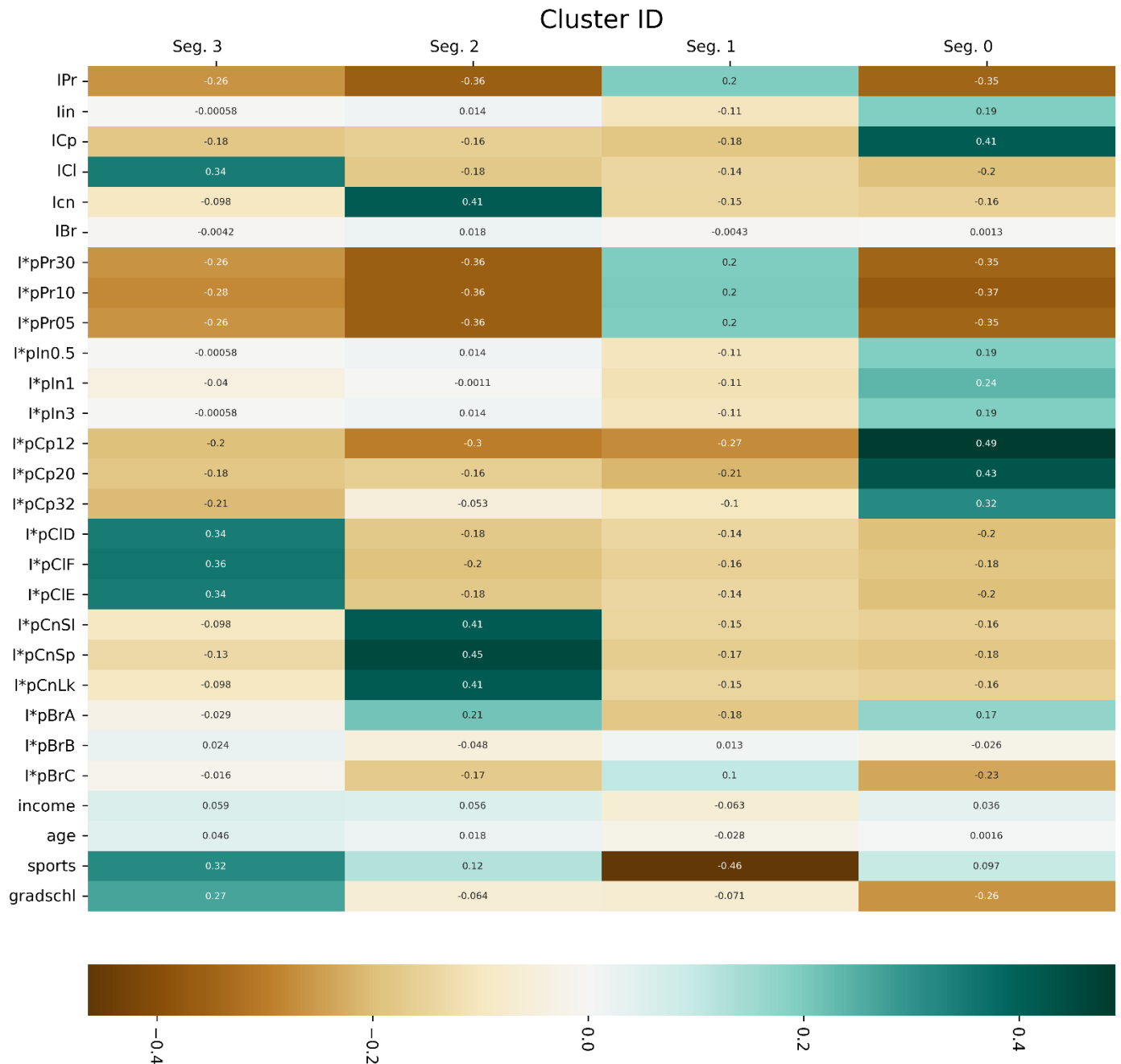
To arrive at the optimal K for the current analysis, I used the elbow method where I calculated the Within-

Cluster Sum of Squares for clusters ranging from 2 to 10. We can observe an elbow around  $K=4$ , after which the slope can be seen gradually decreasing with increasing the # clusters.



I studied both the cases where I could  $K=4$  and  $K=5$  and observed that when  $K=4$ , people in cluster 1 are more concerned about the cleanability aspects of the mugs, cluster 2 being more concerned with insulation and capacity and so on. When  $k=5$ , I observed the 2<sup>nd</sup> cluster being further clustered into two segments with describing characteristics of insulation and capacity respectively. Apart from this the price sensitivity remained almost constant for both the cases. And it was observed that both of these new segments in  $K=5$  case are still very loyal to Brand A which makes it

counter productive to invest more capital in producing more products to cater to segments who are already very loyal to the brand. I believe it would be better in the cost lens to offer one single product instead of two with the combined characteristics of capacity and insulation. Thus, I chose  $k=4$  to be the optimal segmentation scenario.



### Segment Personas:

Segment 1: People in cluster 1 are relatively young college going students who are also into sports. The main use case scenario for these people can be thought of as carrying protein smoothies/shakes for post sports activities/workouts. They would value easy cleaning features of the mugs. These people are not very price sensitive which means that they are ready to pay high prices for the easy cleaning features.

Segment 2: People in cluster 2 are again relatively young category but working and commuting to work every day. The main use case scenario for these people can be thought of as carrying their hot drinks (Tea/coffee) around with them for work. They seem to value the insulation and the capacity characteristics of the mugs.

These people also seem to be into moderate physical activity again bringing their drinks along. This segment is relatively less price sensitive too and are ready to pay high prices given correct features offered. They also seem to be loyal to Brand A.

Segment 3: People in cluster 3 are working parents. They seem to value Slosh, spill and leak resistance features a lot in their mugs. Their main use case scenario for these people could be carrying their drinks while commuting/driving to work. It could also be that these people are planning to pack the drinks for their kids and hope that the mugs are spill/leak resistant. This segment is not very price sensitive as well, loyal to Brand A and are ready to pay good prices given the mugs have all these features that they primarily value.

Segment 4: People in cluster 4 seem to be relatively very price sensitive. They might be belonging to low-income groups are not interested in sports. They would most probably not care for the features that much and just go for the cheapest option on the shelf.

Based on the above analysis, it would make sense to target the first segment and advertise the mugs to them as they are not price sensitive and have the highest overlap with the product features. The fourth segment needs to be studied further in depth and appropriate product needs to be designed that is cost friendly for us as well. The strong brand loyalty of segments 2 and 3 makes it hard for us to woo them to shift to another product.